COLORADO OPEN LANDS OUR LAND, OUR WATER, OUR FUTURE.

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September 21, 2009

Mr. Dennis Rankin
1400 Independence Avenue, SW
Mail Stop 1571, Room 2244
Washington, DC 20250-1571

Via Email: dennis.rankin@wdc.usda.gov

Re: Scoping comments, San Luis Valley-Calumet-Comanche Transmission Project

Dear Mr. Rankin:

Colorado Open Lands is a non-profit, 501(c)(3) charitable corporation incorporated in December, 1981. Colorado Open Lands' mission is to preserve the significant open lands and diminishing natural heritage of Colorado, a mission that is accomplished principally, although not exclusively, through the acquisition of conservation easements. The organization currently holds 234 conservation easements in 36 counties totaling 195,059 acres. We have a Board of Directors of eleven, and a staff of ten. Colorado Open Lands was one of the first land trusts in the country to receive national accreditation by the Land Trust Alliance.

I have been employed in the land conservation business for 37 years. I began my career with The Nature Conservancy and opened their office in Colorado in 1976. For seventeen years I was a principal in Western Land Group, a company specializing in land exchanges and permitting with Federal agencies. I have been President of Colorado Open Lands since 1997. I have also served on the boards of two local land trusts, and am currently the Vice-Chairman of the Colorado Coalition of Land Trusts. I have served on conservation commissions for three Governors, including currently as Chairman of Colorado's Conservation Easement Oversight Commission, which acts in an advisory capacity to the Colorado Division of Real Estate and the Colorado Department of Revenue. I helped draft Colorado's original conservation easement enabling legislation, and serve on several state and national committees dealing with conservation issues.

I attended the public meetings in Alamosa and Walsenburg. I am pleased to provide you with our comments on the above referenced project. We appreciate the opportunity to participate. Our comments are as follows:

Purpose and Need for the Project

The purpose of the Project seems quite clear: 1) Improve reliability of electric service in the San Luis Valley and help prevent voltage collapse under peak loads; and, 2) provide a transmission outlet for renewable energy generation in the San Luis Valley. The need is less clear. The documentation we reviewed left several important questions unanswered regarding the need for the Project:

PHOTO COMPLIMENTS OF JOHN FIELDER.

1. Reliability

N-002-001

a. An Outage Event. The reliability issue appears to be based in part at least on the potential for an outage event. Some critical questions are not discussed in the project information: In 2006 a major fire closed Highway 160 over LaVeta Pass (the proposed alternative) for several days, which would have constituted a significant "outage event." Has a similar event ever occurred for the existing Poncha-San Luis 230kV line? What is the historical frequency of an outage event on the existing Poncha-San Luis 230kV line? The *likelihood* of an outage event would seem critical to any need analysis of costs or benefits.

N-002-002

b. Peak Load Requirements. The June, 2008 Alternative Evaluation and Macro Corridor Study ("Study") raises several issues regarding Peak Load requirements. The Study makes seemingly contradictory statements and fails to provide some critical data. On page 3-1, the Study states, "The total energy requirements in the San Luis Valley (approximately 120 MW in 2007) *have remained steady since 1994.*" Nevertheless, further on page 3-1, the Study states "The combined peak loads in the San Luis Valley have exceeded 140 MW in the past and, *based on the historic 2.5 percent growth rate*, have been projected to exceed 170 MW by 2015." Also, on page 3-6, the Study states "Through the EEC program, Tri-State and the Tri-State member cooperatives have already *reduced demand by approximately 30 MW.*" The fact that total demand has remained constant for 15 years, and the EEC program has reduced irrigation power demand, draws into question why historical data shows a 2.5 percent growth rate in peak load. An analysis of need should provide the historical peak load numbers in the San Luis Valley in order to determine the actual past, current, and projected peak load needs. Without those numbers, the peak load need is merely speculative.

N-002-003

c. Voltage Collapse. On page 3-1 the 2008 Study states that "Some of the risk (of voltage collapse) could be mitigated by Xcel's operation of the Alamosa Terminal Generation Facility, however, during approximately 40 hours in 2007, the loads in the San Luis Valley exceeded 111 MW. At that load, the risk of voltage collapse exists even with the Alamosa Terminal Generation Facility in operation." Further clarification is necessary here. Does this mean that with the Alamosa Terminal Generation Facility operating, only peak loads in excess of 111 MW risk a voltage collapse? Is it further true that if the Generation Facility were in operation, the risk of voltage collapse would have only occurred for 40 hours in 2007? A need assessment should address this issue.

2. Alternative Energy Transmission Outlet.

N-002-004

a. Provide transmission capacity for renewable energy development. The 2008 Study indicates the existing transmission system is capable of serving 200 MW of renewable generation in the San Luis Valley. What is the current output of renewable generation in the Valley? What if additional renewable energy projects

N-002-001: Purpose and Need (In Review)

Your email/letter/comment form has been received and your comment noted. Project purpose and need will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-002: Purpose and Need (In Review)

Your email/letter/comment form has been received and your comment noted. Project purpose and need will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-003: Purpose and Need (In Review)

Your email/letter/comment form has been received and your comment noted. Project purpose and need will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-004: Purpose and Need (In Review)

Your email/letter/comment form has been received and your comment noted. Project purpose and need will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-004 are not built – will the construction of the new transmission line be necessary? Are the impacts of the proposed line justified if the benefits of new energy projects are not realized?

N-002-005 b. Alternative routes. The suitability for export of renewable energy via the alternative transmission routes reviewed in the 2008 Study is not discussed. Are some or all of the alternative routes adequate to meet the potential need for the export of renewable energy out of the San Luis Valley?

N-002-006 c. Peak Load Requirements. What is the impact of the potential development by 2012 of up to 2,000 MW of renewable generation projects in the San Luis Valley on the Valley's peak load Requirements?

Alternatives

The Project Proposal presents "Preliminary Alternative Corridors" as well as "Preliminary Alternative Corridor Segments to be Removed". These corridors are located within a single Project Study Area ("Study Area").

N-002-007 1. Corridor locations within the Study Area. The Preliminary Alternative Corridor map provided with the project material states "Preliminary alternative corridors are subject to revision and may be added or removed." Taken literally, this means they may be anywhere within the Study Area (and perhaps beyond). Also taken literally, this means that the "Corridor Segments to be Removed" may in fact be added back in. This is potentially very misleading to the public attempting to evaluate the proposal. In the end, we're left to assume the corridors could be anywhere in the Study Area, and no alternatives have been removed.

2. Development of Alternatives. The alternatives considered in the Project were developed by Tri-State in the June, 2008 Study, and the June, 2009 Alternative Evaluation report. These evaluations considered a wide variety of alternatives, including the proposed action, a no-action alternative, an additional generation capacity alternative, a demand side management alternative, and finally an additional transmission capacity alternative that considered no less than eighteen different transmission line routes. Ultimately the reports conclude "A new 230kV transmission line from the San Luis Valley Substation to the Walsenburg Substation is the best alternative to provide the necessary power and energy to the San Louis Valley to prevent Voltage collapse. . . . This line would also increase the capacity to export additional power and energy from the San Luis Valley and serve a portion of the planned renewable energy development in the valley." (June, 2008 Study, pg. 3-16). It is significant that the Study did not determine the alternatives weren't feasible, it determined only that they weren't as preferable as the proposed action.

N-002-008

N-002-009 However, it is the function of the NEPA process, not the project applicant, to evaluate alternatives. Indeed, the Regulations at 40 C.F.R. Sec. 1502.14, state that *the lead federal agency* shall:

N-002-005: Project Alternatives (In Review)

Your email/letter/comment from has been received and your comment noted. A range of reasonable project alternatives and mitigation measures including the no action alternative will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-006: Purpose and Need (In Review)

Your email/letter/comment form has been received and your comment noted. Project purpose and need will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-007: Public Involvement Process (In Review)

Your email/letter/comment form has been received and your comment noted. The project is in the planning and environmental review stages. Current project information will be available on the RUS project website, http://www.usda.gov/rus/water/ees/ea.htm and the Utilities' project website, http://www.socotransmission.com/.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-008: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis

N-002-009

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) Include reasonable alternatives not within the jurisdiction of the lead agency.

(d) Include the alternative of no action.

N-002-010

3. Lack of Environmental Analysis of Alternatives. The 2008 and 2009 Tri-State studies contain virtually no analysis of the environmental impacts of the alternatives considered. However, such an analysis is the purpose of an Environmental Assessment. "The purpose of an EA is to determine the significance of the environmental effects and to look at alternative means to achieve the agency's objectives." (40 C.F.R. Sec. 1508.9). Sec. 1501.2(b) goes on to state that *the lead agency* shall: "Identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses. Environmental documents and appropriate analyses shall be circulated and reviewed at the same time as other planning documents." The development of alternatives that is the basis of the proposal a) was not done by the lead agency, b) contains economic and technical analysis but almost no environmental analysis, and c) does not comply with NEPA.

N-002-011

4. Study Area. Instead of the Project Study Area being determined by the alternatives, it was determine by the proposed alternative, thereby eliminating consideration of the other alternatives. "studies by Tri-State's Power System Planning Department determined that a new 230-kV transmission line from the San Luis Valley Substation to the Walsenburg Substation offered the best way to meet the purpose and need for the Project. The study area was then identified based on boundaries that provide enough area to offer multiple feasible and reasonably direct corridor alternatives." (June, 2008 Study, pg 4-1). In other words, the study area is limited to those areas that enable the applicants preferred alternative.

5. NEPA pre-empted. The purpose of NEPA is clear:

> "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken," and "The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." (40 C.F.R. 1500.1)

N-002-012

In this case, however, key and fundamental decisions have already been made by the Project applicant. By eliminating alternatives other than their preferred alternative, and by creating a Project Study Area that does not include most of the viable alternatives for the Project, the Project applicant has pre-empted the proper functions of NEPA. By failing to incorporate environmental considerations in the determination of alternatives, the proposal is further not in compliance with the requirements of NEPA.

Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-009: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
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N-002-010: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service

6. Recommended Action. We have several recommendations for the Rural Utilities Service in the development of Project alternatives:

N-002-013

a. Study Area. The Project Study Area should be the area included in figure 3-3, labeled "Studied Alternatives" in the June, 2008 Tri-State Alternative Evaluation and Macro Corridor Study.

N-002-014

b. Alternatives. At a minimum, the alternatives to be considered should include:
i. No Action
ii. Additional Generation Capacity
iii. Demand Side Management
iv. Additional Transmission Capacity alternatives, including the eighteen routes considered by the Tri-State study
v. An alternative replacing the existing 115kV Poncha-Sargent line with a 230kV line
vi. Alternatives that combine elements of the other alternatives. For example, are there feasible alternatives that combine parts of alternatives ii, iii, full operation of Xcel's Alamosa Terminal Generation Facility, and v?
vii. Applicant's proposed alternative

N-002-015

c. Environmental Considerations. Evaluate the environmental impacts of all feasible alternatives.

Affected Environment

N-002-016

The affected environment as presented in the Project Overview is limited to the Study Area, and, as stated earlier, the potential location of the transmission line and related facilities are anywhere within the Study Area. The material provided with the project package identify some of the significant components potentially impacted by the proposal, but fail to identify others. Among those not included are:

1. Potential Conservation Areas.

N-002-017

a. Keep it Colorado priority landscape. Keep it Colorado is the program of the Colorado Conservation Partnership. Unique in approach and scale, the Colorado Conservation Partnership leverages the diverse missions, resources, and collective expertise of five of Colorado's leading conservation organizations to pursue the greatest possible conservation impact in the coming decade. The Partnership envisions a Colorado in which our finest farming, agricultural and ranching lands, unique wildlife habitats, world-renowned recreational landscapes, scenic vistas and open spaces are permanently protected for current and future generations. Side by side with local partners, the Colorado Conservation Trust, Colorado Open Lands, The Conservation Fund, The Nature Conservancy and the Trust for Public Land are combining strengths and core competencies to achieve a focused, strategic and collaborative land and water conservation vision for all of Colorado.

(RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
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N-002-011: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
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N-002-012: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has

N-002-018

The Rio Grande Corridor, the Southern Sangre de Cristo landscape, and the Huerfano Uplands landscape have been identified by the Colorado Conservation Partnership as three of twenty-four important landscapes critical to the conservation future of Colorado. The Rio Grande Corridor is along the Rio Grande River in the west end of the Study Area. The Southern Sangre de Cristo landscape includes most of the Study Area, and the Huerfano Uplands landscape includes a portion of the Study Area south of Pueblo and east of I-25. A map of the landscapes boundaries is attached as Exhibit B. The landscapes are further described (www.keepitcolorado.org) as:

i. Rio Grande Corridor. Against a backdrop of the jagged 14,000-foot summits of the Sangre de Cristo Mountains to the east and the San Juan Mountains to the west, the Rio Grande, the fourth longest river in the United States, supports working farms and ranches, as well as critical habitat for species such as the willow flycatcher.

ii. Southern Sangre de Cristo. The area was first settled in 1861 by Colonel John Francisco, who, as legend has it, claimed "this is Paradise enough for me." Steeped in history, surrounded by magnificent peaks, and containing the southwest corner of the San Luis Valley, this landscape encompasses some of the most spectacular view in the country and abundant critical wildlife habitat.

iii. Prairie Canyonlands. Lower Purgatoire River & Huerfano Uplands: Intact and untilled, the Prairie Canyonlands are a spectacular area of rimrock, junipers, cactus, grasses, cottonwoods and dramatic canyon systems carved out by the Huerfano, Cucharas, Apishipa and Purgatoire Rivers. The rivers host one of the best native fish assemblages in the Central Shortgrass Prairie, while remote tributaries and shale outcrops support rare plant species, the most intact complement of large mammal species in eastern Colorado, and the greatest diversity of reptile and amphibian species in Colorado.

N-002-019

b. Colorado Natural Heritage Program Potential Conservation Areas. The material provided with the project includes a map label Potential Conservation Areas. However, this map only includes the Network Conservation Areas identified by the Colorado Natural Heritage Program. It fails to identify several individual Potential Conservation Areas CNHP has identified. These include:

N-002-020

i. Sangre de Cristo Creek. The area is described by CNHP as having "Very High biodiversity significance." They note that this identified area "supports a good example of a globally imperiled wetland plant community and a fair example of the globally vulnerable Rio Grande cutthroat trout." This area is identified and described in attached Exhibit C.

N-002-021

ii. Trinchera Ranch. The CNHP identified eight Potential Conservation Areas within the Trinchera Ranch.

requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-013: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-014: Project Alternatives (In Review)

Your email/letter/comment from has been received and your comment

N-002-022

iii. Spanish Peaks. The CNHP identified three Potential Conservation Areas within the Spanish Peaks.

N-002-023

iv. Little Ute Creek. The area is described by CNHP as having "High biodiversity significance." It is noted that the "PCA supports a good example of the globally vulnerable Rio Grande cutthroat trout." This area is identified and described in attached Exhibit D.

N-002-024

v. North Fork Trinchera Creek. The area is described by CNHP as having "Very High biodiversity significance." They note that the identified area "supports good examples of a globally imperiled and globally vulnerable riparian plant community and a fair example of the globally vulnerable Rio Grande cutthroat trout." This area is identified and described in attached Exhibit E.

N-002-025

vi. Greenhorn Creek at I-25. The area is described by CNHP as having "High biodiversity significance." It is noted that the "PCA contains an unranked occurance of a globally imperiled plant species, Rocky Mountain bladderpod." This area is identified and described in attached Exhibit F.

N-002-026

c. Conservation Easements. The resource maps included with the Project material identifies conservation easements in the "Jurisdiction" map. However, it does not identify conservation easements as protected conservation lands, which by definition, they are. Congress, and subsequently the Treasury Regulations in 1.170(A), set forth the requirements for conservation easements. The requirements are numerous, but relevant conditions include:

i. The conservation easement must be held by a qualified organization. These include governmental units and charitable 501(c)(3) organizations operated primarily or substantially for conservation purposes;

ii. The conservation easement must be exclusively for conservation purposes. The regulations identify four qualifying purposes, which are defined as:

a. The preservation of land areas for outdoor recreation by, or education of, the general public;

b. The protection of a relatively natural habitat for fish, wildlife, or plants, or similar ecosystem; This includes the protection of "significant relatively natural habitats or ecosystem" which include, but are not limited to, "habitats for rare, endangered, or threatened species of animals, fish, or plants; natural areas that represent high quality examples of a terrestrial community or aquatic community." (Sec. 1.170A-14(d)(3)(ii)).

noted. A range of reasonable project alternatives and mitigation measures including the no action alternative will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-015: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-016: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other

c. The preservation of certain open space (including farmland and forest land). This includes land for the scenic enjoyment, "Preservation of land may be for the scenic enjoyment of the general public if development of the property would impair the scenic character of the local rural or urban landscape or would interfere with a scenic panorama that can be enjoyed from a park, nature preserve, road, waterbody, trail, or historic structure or land area, and such area or transportation way is open to, or utilized by, the public." Sec. 1.170A-14(d)(4)(ii).

d. The preservation of an historically important land area or a certified historic structure;

iii. The conservation easement must be in perpetuity. Section 1.170A-14(a) states "the conservation purpose must be protected in perpetuity. The Congressional Committee report for the original legislation is clear: "the committee intends that the perpetual restrictions must be enforceable by the donee organization (and successors in interest) against *all* other parties in interest." (9/4/80 report of the Committee on Ways and Means, U.S. House of Representatives, on H.R. 7956).

Several points are germane to the Study Area:

N-002-027

i. Conservation easements are intended to be held by "qualified organizations." Congress and the Regulations did not draw a distinction between government agencies and non-profit land trusts in their qualifications or desirability to hold conservation easements.

N-002-028

ii. The intent of Congress and the Treasury Department in creating the conservation easement statutes and regulations includes to protect a scenic panorama for the public, including, specifically, from roads.

N-002-029

iii. The intent of Congress and the Treasury Department in creating the conservation easement statutes and regulations includes to protect habitat for fish, wildlife, or plant communities.

N-002-030

iv. Congress intended conservation easements to be in perpetuity, and to protect the conservation purposes of the easement in perpetuity. Senator Max Baucus made this purpose clear when he stated in January of 2007: "To assure that open space and habitat will be there for future generations, we must help our hard-working farmers and ranchers preserve this precious heritage and their way-of-life. Conservation easements have been tremendously successful in preserving open space and wildlife habitat."

Colorado Open Lands holds twenty conservation easements in the Study Area. They tend to lie in three geographic areas in which we are pro-active: 1) The

federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-017: Land Use (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to land use from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-018: Land Use (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to land use from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-019: Land Use (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to land use from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in

Trinchera/Blanca Ranch in Costilla County; 2) the La Veta area, particularly the Wahatoya Valley, in Huerfano County, and 3) the Wet Mountain area of Pueblo County. A map of these easements is attached as Exhibit G, and photos are attached as Exhibit H. The importance of these areas is described further:

N-002-031

i. Trinchera/Blanca Ranch. The Ranch is the largest contiguous remnant of the historic Sangre de Cristo land grant, which dates to 1843. The Mexican government made the Sangre de Cristo land grant in 1843 in an effort to encourage settlement in the area and as a means of establishing territory north of the Mexican border. Originally consisting of over 1,000,000 acres, the Sangre de Cristo land grant was the largest piece of privately held property in what is now Colorado. The Ranch has remained as private land since the land grant was initially issued. Malcolm Forbes purchased the Trinchera Property in 1969 and since that time it has been a family retreat. In 1982, Mr. Forbes purchased the Blanca portion of the original ranch, reuniting the Blanca and Trinchera portions of the original ranch and creating the Trinchera Ranch as it is known today -- the largest privately held deeded ranch in Colorado.

During almost 40 years of stewardship, the Forbes family protected, maintained and enhanced the Ranch and its natural inhabitants with a deep respect for its environment, history, culture and lore. This stewardship has resulted in the preservation of the Ranch's ecosystems and the conservation of nature and wildlife on a scale seldom seen in private ownership. Through the Forbes charitable donation of a conservation easement over the Trinchera portion of the Ranch, the Forbes family sought to insure the preservation of this unique part of Americana for generations to come.

The Bacon family purchased the Trinchera/Blanca Ranch from the Forbes family in 2007. The Bacon's have a long commitment to land conservation and purchased the Ranch to continue the conservation and stewardship practices begun by the Forbes. Consistent with their intent since purchasing the property, Colorado Open Lands has been in productive discussions with the Bacon's to place a conservation easement on the Blanca portion of the Ranch. Unfortunately, the destruction of scenic and wildlife values resulting from the construction of the proposed transmission line may cause the Bacon's to abandon plans to complete the preservation of one of the most significant ranches in America.

N-002-032

The Trinchera ranch is a land area of significant breadth and diversity, with outstanding natural habitat and open space, including scenic views, diverse forest, wildlife, and plant habitats, and agricultural resources. These conservation values are manifested in a Ranch which is both unique to Colorado and the Nation. As one of the largest privately owned properties in the United States, it possesses open space surpassed only by select state or national parks and refuges. Protection of the Ranch is essential to reserving the open space value of the land. Although the vistas and open space make the

N-002-033

late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-020: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-021: Land Use (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to land use from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-022: Land Use (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to land use from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-023: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment

N-002-033

Ranch ideal for development, the construction of subdivisions would result in increased development and population pressures, degrading, and possibly eliminating the scenic and natural character of Costilla County.

N-002-034

The Ranch offers spectacular views of 14,000-foot snow-capped peaks, vast expanses of conifer forest interspersed in autumn with golden aspen and cottonwoods, and broad river valleys of grasses and pinon-juniper. The Ranch's size and visual dominance make it the local and regional landscape. It is visible from the towns of Alamosa and Antonito and from over 25 miles along U.S. Highway 285. From the towns of Ft. Garland, Blanca and San Luis, and from over 50 miles along State Highways 160 and 159, the Ranch is the sole view to the north and east. Across the southern San Luis Valley, the Ranch is the eastern viewscape from BLM, Forest Service, State Wildlife and State Park lands.

N-002-035

Its magnificence dominates the senses. The Ranch is comprised of a myriad of vegetation, including alpine vegetation, multiple forest types, sage and grasses. For the past two decades, Ranch management has emphasized the protection of wildlife. The presence of such a variety of wildlife and vegetation is a key element in the conservation values. The property's size, elevation, and climate create a rich diversity of ecotypes. Subalpine Forest, Aspen, Pinon-Juniper and Sagebrush are dominant ecosystems. Alpine, Douglas Fir, Lodgepole Pine, Gambel Oak, High Elevation Riparian and Cottonwood Riparian ecosystems are also present. The size, diversity and defensibility of these ecosystems offers excellent habitat for a variety of plants, fish, and wildlife.

N-002-036

The Alpine vegetative community is very healthy and virtually unaltered. Portions of the Sagebrush, Pinon-Juniper and low elevation Riparian ecosystems contain a diversity of grass, forbs and other browse species. The Ranch is well-irrigated, including irrigated meadows covering a significant amount of acres on the Ranch, producing predominantly brome, orchard grass, timothy and alfalfa. Current grass and sage management promote a visually

N-002-037

diverse and lush viewscape. Hay products have been used as wildlife feed as well as income-producing agriculture. Relatively recent management practices include the introduction of controlled burning and mowing, and have significantly improved the vegetation quality and diversity of the property.

In addition to the variety of timber and vegetation present, wildlife is also

N-002-038

abundant. Major species inhabiting the Property include elk, mule deer, black bear, bighorn sheep, bald and golden eagle, rainbow, brook, cutthroat and brown trout, turkey, geese, band-tailed pigeon, snowshoe hare, cottontail and jack rabbit, mountain lion and coyote.

Indicative of it's uniqueness and importance, the Trinchera Ranch was the prototype for the State of Colorado's Ranching for Wildlife program, and in

noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-024: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-025: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-026: Land Use (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to land use from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in

July of 2008 the Colorado Division of Wildlife issued a proclamation that declared:

The Colorado Wildlife Commission wishes to express its deepest gratitude and respect for all the efforts of the Forbes family. Over the years the Forbes family has proven that there can be no better friend to Colorado's wildlife. . . Truly the Forbes family has found the appropriate successor to continue the wildlife legacy of the Trinchera Ranch that is so valuable to the State of Colorado, her citizens and visitors.

N-002-039

ii. Wahatoya Valley. The Wahatoya Valley is located on the north side of the Spanish Peaks in Huerfano County. The valley takes its namesake from Wahatoya Creek, a tributary of the Cuchara River. The valley begins as a narrow canyon between the Spanish Peaks and stretches north from the base of West Spanish Peak, ending just short of the town of La Veta. Descending from mixed conifer and aspen forests, pinyon-juniper-oak woodland, cottonwood bottoms and lush hayfields, the valley provides critical winter range for elk and deer, as well as year-round habitat for black bear, mountain lion, wild turkey and other wildlife. Since its settlement during the latter part of the nineteenth century, the valley remained a largely secluded agricultural valley, but over the last twenty years has seen an increase in the number of 35-acre ranchettes and second home development.

In 1996, a local landowner concerned about potential changes in the valley took the initiative to protect the valley from further development. He organized several landowners to begin meeting with the Rocky Mountain Elk Foundation to discuss a land protection strategy for the valley. By the end of 1998, five landowners had collectively placed 6,000 acres of land under easement with the Elk Foundation. Since that time, Colorado Open Lands has protected 12 more properties, totaling 2,520 acres, through donated conservation easements. Virtually the entire Wahatoya Valley has now been protected with conservation easements. These easements provide:

N-002-040

- A buffer for the San Isabel Forest and the recently declared Spanish Peaks Wilderness Area.
- Protect several miles of the Wahatoya Creek riparian corridor
- Critical winter range for deer and elk, as well as year-round habitat for black bear, mountain lion, wild turkey and other wildlife.
- A scenic by-way along C.R. 360 and the viewshed defined by the Wahatoya Valley, the "Big Wall" (a 100-foot high volcanic dike that extends from the base of the Spanish Peaks) and the Spanish Peaks
- Agricultural lands along the valley floor.

N-002-041

iii. Wet Mountain Area, Pueblo County. The Wet Mountain project area contains some of the most productive agricultural lands in western Pueblo

late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-027: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-028: Visual and Aesthetic (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to visual and aesthetic resources from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-029: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-030: Land Use (In Review)

Your email/letter/comment form has been received and your comment

N-002-041

County. The area is also rich with biological resources, including threatened and endangered species.

In addition to the agricultural and natural values, the Wet Mountains comprise the mountain backdrop for both the city of Pueblo and the I-25 corridor through Pueblo County, and represent some of the most spectacular scenery in the county.

Some of the significant resources include:

N-002-042

- The Saint Charles River, the Muddy Creek drainage, and associated tributaries, along with their high quality riparian habitat,
- Important wildlife habitat and migration routes for several species, such as elk, deer, mountain lion, black bear, and wild turkeys,
- Rare and imperiled species, including the Round Leaf Four O'Clock, Simius Roadside Skipper, Rhesus Skipper, and Eaton's Lip Fern,

N-002-043

- Centennial ranches – ranches that have been in the same family for over 100 years, and

N-002-044

- Scenic views from I-25 and Highway 78.

N-002-045

Since 1999, Colorado Open Lands has worked with private landowners as part of the Wet Mountain Open Space Coalition to protect 10,832 acres in 16 conservation easements. The two conservation easements that would be impacted by the proposed corridor have significant public investment with a total of $293,092 in state funding through the Great Outdoors Colorado program and $219,422 in federal funding through the Farm and Ranchland Protection Program.

N-002-046

2. Species Habitat. Resource maps of Bald eagle, black-tailed prairie dog, elk, mule deer and pronghorn habitat are included in the Project material. However, several additional species habitat have been mapped by the Colorado Division of Wildlife but were not included. These species are: Bighorn sheep, Lynx and Abert's squirrel (see attached Exhibit I); Ptarmigan, Wild turkey and Scaled quail (see attached Exhibit J); and, Greenback and Rio Grande Cutthroat trout (see attached Exhibit K). An analysis of the Project's impacts on these species should be included with those previously identified.

N-002-047

3. Visual resources. The Study Area consists of highly unique and valuable scenic resources, including two Scenic Byways. Photo simulations have been provided in the project material. However, we believe additional photo simulations are needed to better understand the potential visual impacts of the proposal. Specifically, we request Simulation photo 7 taken from the junction of Highway 159 and Highway 160 in Fort Garland. We request Simulation 8, 9, and 10 from 0.25 miles, rather than 2.05, 1.02 miles, and 2.75 miles, respectively. We also request additional photo simulations from the points identified as 20 and 21 on attached Exhibit L with the proposed transmission line in the Preliminary Alternative Corridor closest to the photo points.

noted. Potential impacts to land use from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-031: Cultural, Historic, and Arch (In Review)
Your email/letter/comment form has been received and your comment noted. Potential impacts to and mitigation measures regarding cultural, historic, and archaeological resources from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-032: Environmental Consequences (In Review)
Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-033: Environmental Consequences (In Review)
Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in

Direct and Indirect Impacts

N-002-048 The analysis must include both direct and indirect impacts. 40 C.F.R. Sec. 1508.8 identifies "indirect effects" as those "which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable." These would include impacts that occur offsite, but effect the environmental or natural resources (such as scenic, habitat or species populations) on a property.

N-002-049 "The purpose of an EA is to determine the significance of the environmental effects and to look at alternative means to achieve the agency's objectives." (40 C.F.R. Sec. 1508.9). The Study Area is limited to only those areas that support the applicant's preferred alternative, and does not include the alternatives that were dismissed by the applicant. This omission does not allow consideration of alternatives to the environmental effects of the applicants preferred alternative, and therefore fails to fulfill the purpose of an EA.

Cumulative Impacts

The June, 2008 Study, states on page 1-4 "several renewable energy projects have been proposed in the San Luis Valley; the transmission system in this area will likely be used to transmit this "renewable" energy to other customers in and around Colorado." And "Adequate transmission capacity is a critical element necessary for the development of renewable energy projects in this area." And, finally, "Improving the electrical system in this area would increase the capacity of the system to serve renewable generation projects."

40 C.F.R. 1508.25 states "'Scope' consists of the range of actions, alternatives and impacts to be considered in an environmental impact statement. . . To determine the scope of environmental impact statements, agencies shall consider 3 types of actions . . . and 3 types of impacts. They include:

(a) Actions which may be:

(1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

(i) Automatically trigger other actions which may require environmental impact statements.

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

(2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-034: Visual and Aesthetic (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to visual and aesthetic resources from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-035: Vegetation (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to vegetation from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-036: Vegetation (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to vegetation from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-037: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment

(c) Impacts, which may be (1) Direct; (2) indirect; (3) cumulative.

40 C.F.R. 1508.7 defines Cumulative Impact as "the impact on the environment that results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions."

As stated in the applicant's 2008 Study, construction of alternative energy projects (including solar, geothermal and biomass projects) are reasonably foreseeable future actions because "Adequate transmission capacity is a critical element necessary for the development of renewable energy projects in this area." And "Improving the electrical system in this area would increase the capacity of the system to serve renewable generation projects."

N-002-050 In order to comply with the NEPA regulations, it is essential that the analysis consider the cumulative impacts of the proposal, which include construction of "reasonably foreseeable" alternative energy projects in the San Luis Valley.

Summary

The proposed Project is to construct 95 miles of new double-circuit 230-kV transmission line, and 45 miles of new double-circuit 345-kV transmission line in an area of sensitive visual resources, rare species habitat, and unique natural resources where no transmission lines currently exist. We have made several suggestions to the Rural Utility Service:

N-002-051 1. Thoroughly document the Need for this Project, particularly in terms of statistical support for outage event, peak load requirement, and voltage collapse conclusions.

N-002-052 2. Conduct a NEPA analysis of all possible Project alternatives to determine which are feasible for further study. At a minimum, this would include the alternatives identified by the Project applicant in the June, 2008 Alternative Evaluation Study.

N-002-053 3. Expand the Project Study Area to include the alternatives in #2 above.

N-002-054 4. Include a thorough environmental analysis of the alternatives.

N-002-055 5. Address the impacts on lands permanently preserved with conservation easements in the same manner as other conservation areas.

N-002-056 6. Address both direct and indirect impacts or effects of the proposal and the alternatives.

N-002-057 7. Address the cumulative impacts of the proposal, including new alternative energy facilities.

N-002-058 Finally, it is clear this proposal has a potentially significant impact on the Project area, and we urge the RUS to conduct an Environmental Impact Statement for the proposal.

noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

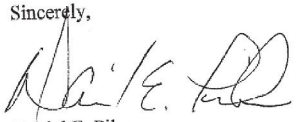
N-002-038: Wildlife (In Review)
Your email/letter/comment form has been received and your comment noted. Potential impacts to wildlife from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-039: Environmental Consequences (In Review)
Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-040: Environmental Consequences (In Review)
Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in

Thank you for the opportunity to comment. We would be happy to answer any questions you may have.

Sincerely,



Daniel E. Pike
President

enclosures

late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-041: Environmental Consequences (In Review)

Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-042: Wildlife (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to wildlife from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-043: Cultural, Historic, and Arch (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to and mitigation measures regarding cultural, historic, and archaeological resources from the proposed project will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-044: Visual and Aesthetic (In Review)

Your email/letter/comment form has been received and your comment

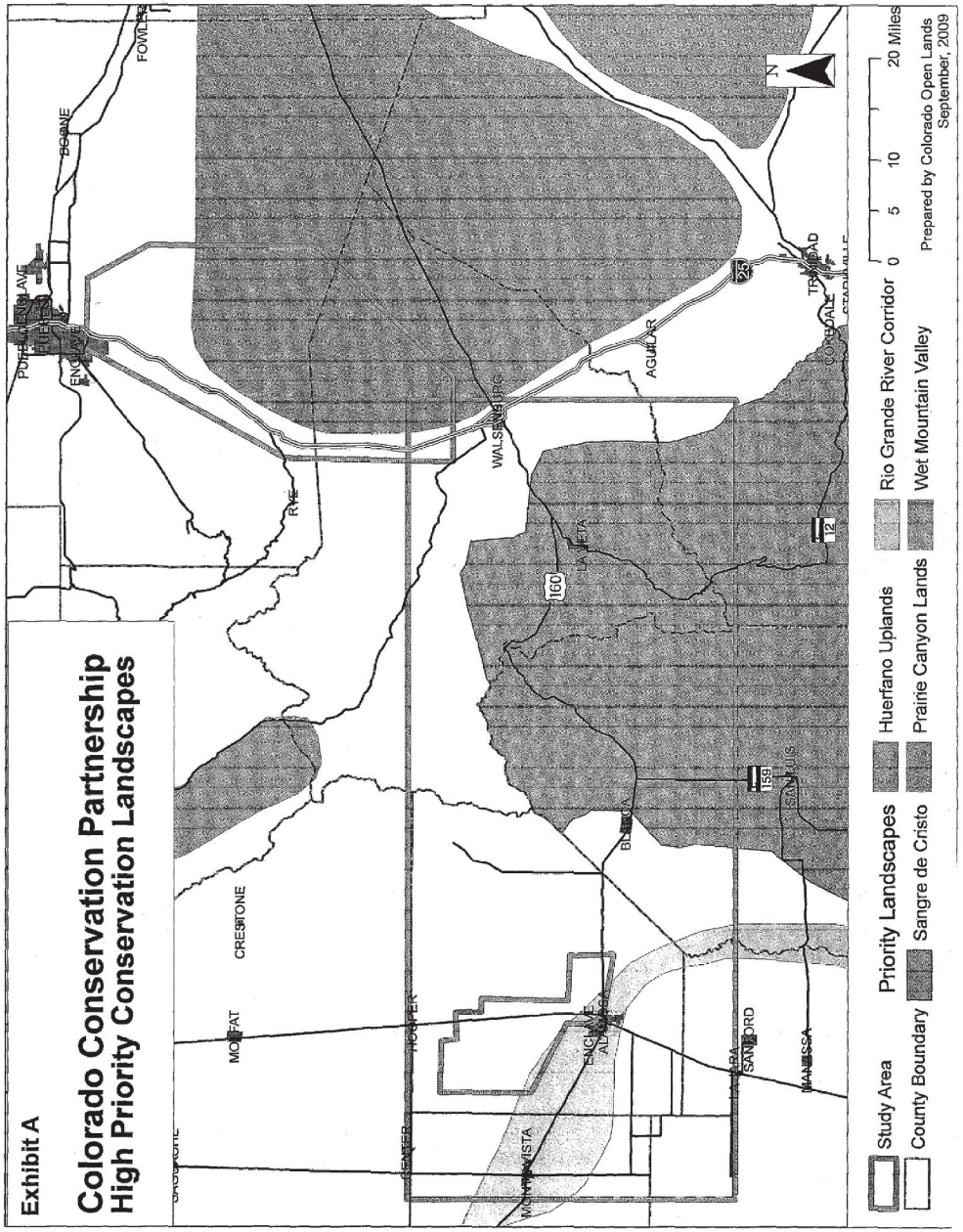
Comments of Colorado Open Lands
September 21, 2009
Exhibits

Exhibit A	Colorado Conservation Partnership Priority Landscapes
Exhibit B	CNHP Potential Conservation Areas
Exhibit C	CNHP Sangre de Cristo Creek Potential Conservation Area
Exhibit D	CNHP Little Ute Creek Potential Conservation Area
Exhibit E	CNHP North Fork Trinchera Creek Potential Conservation Area
Exhibit F	CNHP Greenhorn Creek at I-25 Potential Conservation Area
Exhibit G	Colorado Open Lands Conservation Easements
Exhibit H	Colorado Open Lands Easement Photos
Exhibit I	Habitat Not Considered – Mammal Species
Exhibit J	Habitat Not Considered – Bird Species
Exhibit K	Habitat Not Considered – Fish Species
Exhibit L	Additional Photo Simulation Points

noted. Potential impacts to visual and aesthetic resources from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-045: Environmental Consequences (In Review)
Your email/letter/comment form has been received and your comment noted. Potential environmental consequences and mitigation measures from the proposed project will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-046: NEPA Process (In Review)
Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.



N-002-047: Visual and Aesthetic (In Review)

Your email/letter/comment form has been received and your comment noted. Potential impacts to visual and aesthetic resources from the proposed project and mitigation measures will be addressed in the Environmental Impact Statement.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-048: NEPA Process (In Review)

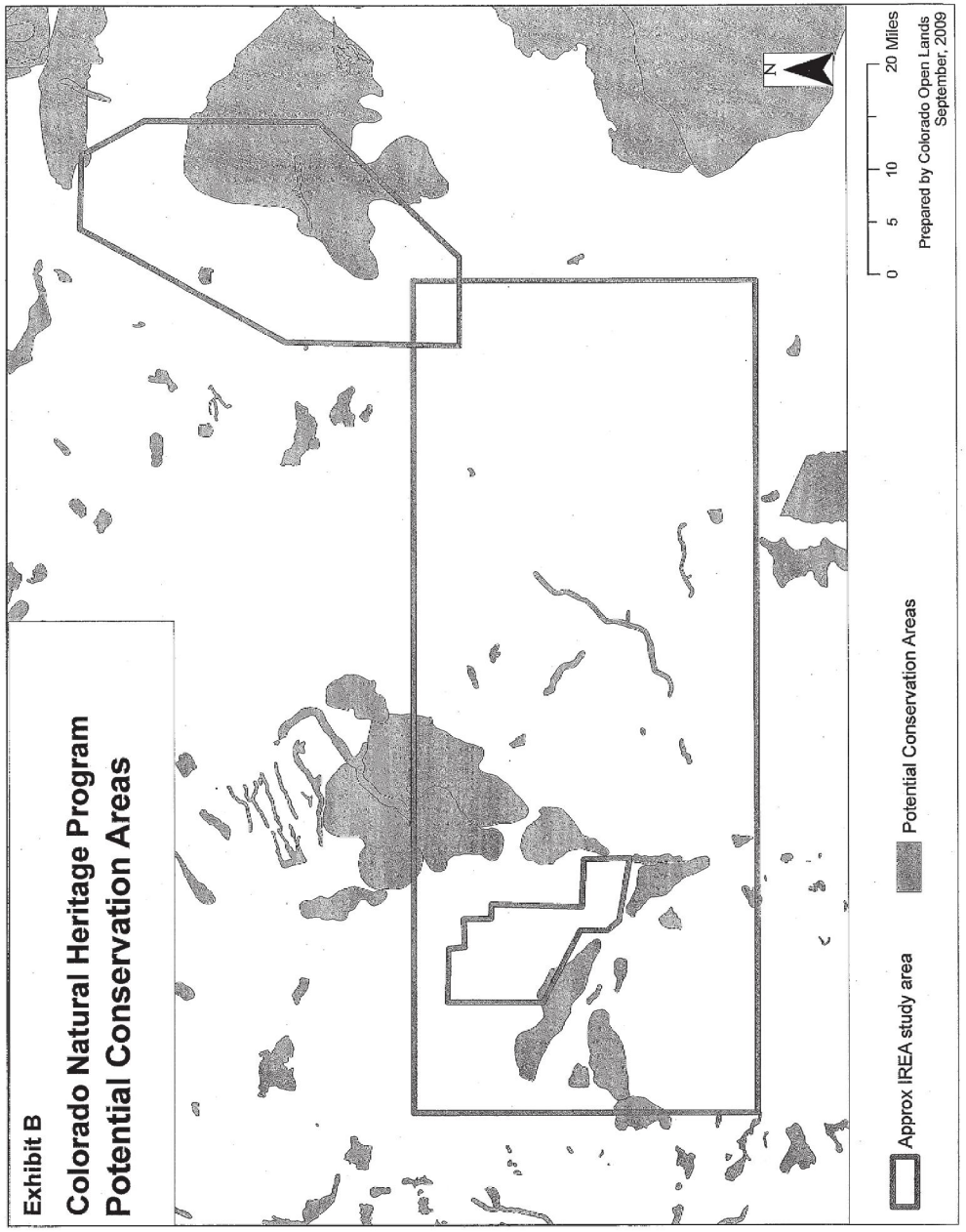
Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.

Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm.

The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-049: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action



requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-050: Cumulative Impacts (In Review)

Your email/letter/comment card has been received and your comment noted. Potential cumulative impacts and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-051: Purpose and Need (In Review)

Your email/letter/comment form has been received and your comment noted. Project purpose and need will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-052: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has

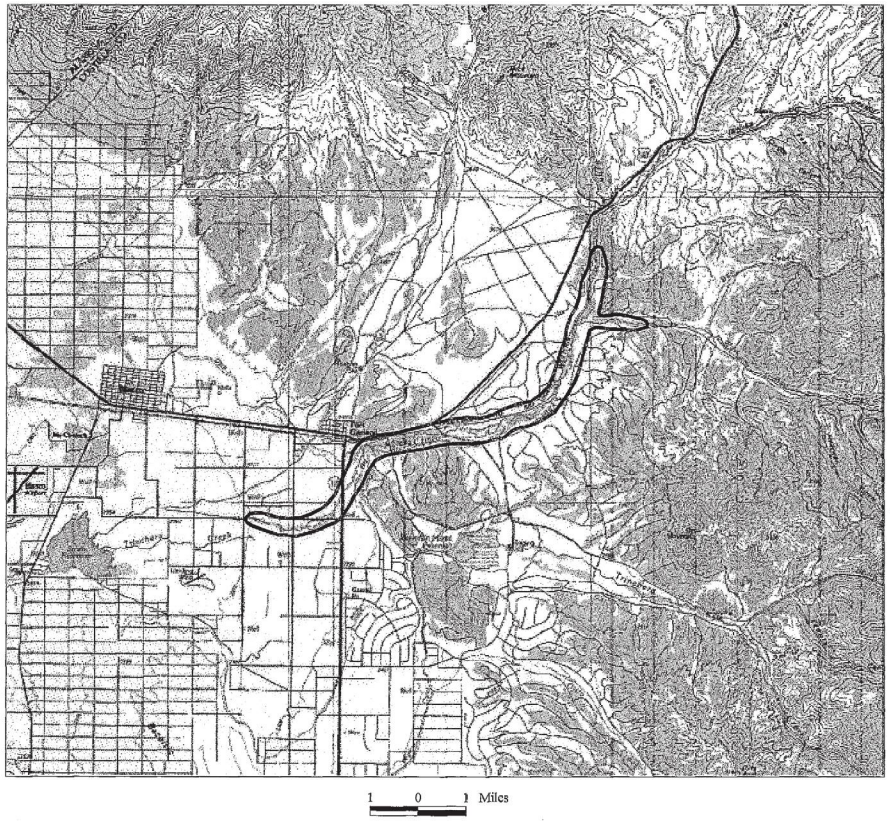


Figure 10. Sangre de Cristo Creek Potential Conservation Area

determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-053: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-054: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis

SANGRE DE CRISTO CREEK POTENTIAL CONSERVATION AREA

Biodiversity Rank: B2. Very High biodiversity significance. The PCA supports a good example of a globally imperiled wetland plant community and a fair example of the globally vulnerable Rio Grande cutthroat trout.

Protection Urgency Rank: P3. Protection actions may be needed, but probably not within the next five years. It is estimated that current stresses may reduce the viability of the elements of the PCA, if protection action is not taken. A small portion of the site is a Costilla County Park, however, much of the site has no formal protection and is owned by numerous landowners affiliated with a subdivision on Forbes-Trinchera ranch.

Management Urgency Rank: M4. Current management seems to favor the persistence of the elements in the PCA, but management actions may be needed in the future to maintain the current quality of the element occurrences.

Location: This PCA is located along Sangre de Cristo Creek near the town of Fort Garland, CO.

U.S.G.S. 7.5-min. quadrangle: Fort Garland and Trinchera Ranch

Legal Description: Unsurveyed

Elevation: 7,800 – 8,200 ft. Approximate Size: 5,597 acres

General Description: This PCA encompasses a portion of Sangre de Cristo Creek near the town of Fort Garland. This reach of Sangre de Cristo Creek has a moderately wide floodplain and is very sinuous. Near the upstream extent of the PCA, the floodplain narrows. Although bounded by railroad tracks, bridges, etc., this occurrence is wider than those seen on lower reaches where agriculture is constricting vegetation to very narrow stands. Much of the creek and old channels are dominated by a dense stand of strapleaf willow (*Salix ligulifolia*) and sandbar willow (*S. exigua*). Other species present in these stands include red-osier dogwood (*Cornus sericea*), river birch (*Betula occidentalis*), slimstem reedgrass (*Calamagrostis stricta*), and false Solomon's seal (*Maianthemum stellatum*). To a much lesser extent, stands of sandbar willow and wild licorice (*Glycyrrhiza lepidota*) and numerous mesic forbs are also prevalent. Narrowleaf cottonwood (*Populus angustifolia*) is occasionally present along the creek. Some non-native species and native increasers are present throughout the riparian area.

The uplands are dominated by rabbitbrush (*Chrysothamnus nauseosus*) and sagebrush (*Artemisia* sp.). Surrounding hilltops are covered with pinyon-juniper woodlands. Pocket gopher mounds are common. Much of the immediate watershed is scattered with homes. A county park is nearby as well as many roads. Hwy. 160 parallels the creek through the entire PCA. The site appears to have been disturbed in the past, but is now exhibiting luxurious growth.

Sangre de Creek supports a fair, genetically pure, historic (native) population of the Rio Grande cutthroat trout (*Oncorhynchus clarki virginalis*) (Harig and Fausch 1996; Alves 1998). Alves (2004) estimates that there are approximately 275 fish/acre in the creek. The population is at risk because of low population numbers (biomass) and competition with brook trout (*Savelinus fontinalis*) (Alves 2004; Alves 1998). Harig and Fausch (1996) note that rainbow trout (*Oncorhynchus mykiss*) were previously stocked in the stream.

Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-055: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-056: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service

Biodiversity Rank Justification: The globally imperiled (G2G3) montane willow carr (*Salix ligulifolia*) is only known from Colorado, but it is expected to occur in New Mexico. The association is a medium- to tall-willow shrubland occurring on saturated floodplains and streambanks of montane elevations. It occurs in moderately wide valleys along low terraces and floodplains, streambanks of narrower streams, below active beaver ponds where multiple channels create vegetated islands, along slightly sinuous, broad channels, and along more sinuous channels with well developed floodplains. Strapleaf willow is highly palatable to livestock; therefore, season-long grazing, especially late summer and early fall browsing, should be avoided in order to maintain the vigor of woody species (Hansen et al. 1995). Overuse by livestock may cause the site to dry and become dominated by introduced grass species such as Kentucky bluegrass (*Poa pratensis*) or smooth brome (*Bromus inermis*) (Manning and Padgett 1995). With continued overuse, the willow species will decline and eventually become eliminated from the site (Hansen et al. 1995). Beaver are important in maintaining this plant association. Beaver dams raise the water table, which is beneficial to willow and sedge species as well as other hydrophytic plants. Beaver dams also help control bank erosion, channel downcutting, and the loss of sediment downstream (Hansen et al. 1995).

The Rio Grande cutthroat trout's range once included the entire Rio Grande and Pecos River watersheds, and possibly the upper Canadian River as well (Trotter 1987). In Colorado, the species occupies less than 1% of its former range (Alves 1996), and wild, genetically pure stock populations are especially imperiled. Artificial habitat including wells, farm ponds, and extensive canal systems as well as human activities including dewatering, fishing and stocking, transbasin diversions, release of domestic sewage, stream channelization, and agricultural chemical applications have greatly modified the original aquatic ecosystem of the San Luis Valley (Zuckerman 1984). These modifications may have contributed directly to the decline in range of the native fishes of the Rio Grande drainage. Free-flowing streams with good quality water, healthy banks, and streamside vegetation within the upper Rio Grande watershed are vital habitat for this subspecies of trout.

Table 18. Natural Heritage element occurrences at Sangre de Cristo Creek PCA.
Elements in bold are those upon which the PCA's B-rank is based.

Scientific Name	Common Name	Global Rank	State Rank	Federal and State Status	EO* Rank
Plant Communities					
Salix ligulifolia	**Montane willow carr**	**G2G3**	**S2S3**		**B**
Fish					
Oncorhynchus clarki virginalis	Rio Grande cutthroat trout	G4T3	S3	FS/BLM, SC	C

*EO=Element Occurrence.

Boundary Justification: The boundaries incorporate an area that will allow natural hydrological processes such as seasonal flooding, sediment deposition, and new channel formation to maintain viable populations of the elements along Sangre de Cristo Creek. The boundaries also provide a small buffer from nearby trails where surface runoff may contribute excess nutrients and sediment. It should be noted that the hydrological processes necessary to the elements are not fully contained by the PCA boundaries. Given that the elements are dependent on natural hydrological processes associated with the Sangre de Cristo Creek and its tributaries, upstream activities such as water diversions, impoundments, and improper livestock grazing are detrimental to the hydrology of the riparian area. This boundary indicates the minimum area that should be considered for any conservation management plan.

(RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the RUS project website at http://www.usda.gov/rus/water/ees/environ.htm.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-057: Cumulative Impacts (In Review)

Your email/letter/comment card has been received and your comment noted. Potential cumulative impacts and mitigation measures will be addressed in the Environmental Impact Statement.
The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

N-002-058: NEPA Process (In Review)

Your email/letter/comment form has been received and your comment noted. Tri-State Generation and Transmission Association, Inc. has requested financial assistance from the USDA Rural Utilities Service (RUS), for their anticipated ownership interest in the proposed San Luis Valley – Calumet - Comanche Transmission Project. RUS has determined that funding Tri-State's ownership interest is a federal action requiring analysis under the National Environmental Policy Act (NEPA). RUS is the lead federal agency for NEPA, and will consult with other federal, state, and local agencies, and affiliated tribes as well as adhere to applicable regulations.
Additional information regarding the NEPA process can be found on the

Protection Comments: A small portion of the site is a Costilla County Park, however, much of the site has no formal protection and is owned by numerous landowners affiliated with a subdivision on Forbes-Trinchera ranch.

Management Comments: The County park is used recreationally, mostly by horse riders. Native plant increasers are prevalent and should be monitored as they may indicate a need to implement and or shift management. No grazing occurs within the site. The hydrology is altered by upstream water diversions.

Soils Description: Soils are not mapped at this site. Soil is mixed alluvium.

Restoration Potential: Restoration should focus on upstream water use. Restoration of natural hydrologic processes would require an immense collaboration with upstream water users, local landowners, municipalities, etc. Wetland functions such as biogeochemical functions, etc., have likely been impacted by hydrologic alterations and a large-scale restoration project could improve those functions. However, although natural hydrology has been altered, the current hydrologic regime is supporting the elements found at this site.

Wetland Functional Assessment: CNHP wetland ecologists did not visit the wetland contained within this PCA during 2003. Thus, a functional assessment could not be conducted. However, notes from a previous visit by CNHP indicate that streambanks are well vegetated and stable, flooding occurs, but may be altered from water diversions. Input of toxicants, sediment, and nutrients is likely occurring from Hwy. 160 and nearby homes. Algae was observed growing in slow moving water, possibly indicating nutrient enrichment. No grazing occurred on site, resulting in dense and lush vegetation growth.

RUS project website at http://www.usda.gov/rus/water/ees/environ.htm. The Environmental Impact Statement is anticipated to be completed in late 2010 and will be available at http://www.usda.gov/rus/water/ees/ea.htm.

LITTLE UTE CREEK POTENTIAL CONSERVATION AREA

Biodiversity Rank: B3. High biodiversity significance. The PCA supports a good example of the globally vulnerable Rio Grande cutthroat trout. Considering that this site supports a genetically pure population the site's Biodiversity Rank was elevated to a B3 as opposed to a B4.

Protection Urgency Rank: P3. Protection actions may be needed, but probably not within the next five years. It is estimated that current stresses may reduce the viability of the elements of the PCA if protection action is not taken.

Management Urgency Rank: M4. Current management seems to favor the persistence of the elements in the PCA, but management actions may be needed in the future to maintain the current quality of the element occurrences.

Location: This PCA begins on the eastern flank of Blanca Peak.

U.S.G.S. 7.5-min. quadrangle: Blanca Peak

Legal Description: Unsurveyed

Elevation: 8,800 – 11,600 ft. Approximate Size: 2,079 acres

General Description: This PCA encompasses most of the Little Ute Creek drainage, a small tributary of Ute Creek. The site spans from the subalpine to montane zones, flowing through a diversity of riparian plant community types.

Little Ute Creek supports a good, genetically pure, but transplanted population of the Rio Grande cutthroat trout (*Oncorhynchus clarki virginalis*). The population occurs above a natural barrier (waterfall) and is free of competition from non-native fish (Alves 1998). Historically, Little Ute Creek is not thought to have supported Rio Grande cutthroat trout (Harig and Fausch 1996). The current population is a result of stocking from Placer Creek (1978) and West Indian Creek (1981 and 1987) (Harig and Fausch 1996). The population is stable and secure but has a low abundance of individuals (Alves 1998).

Biodiversity Rank Justification: The Rio Grande cutthroat trout's range once included the entire Rio Grande and Pecos River watersheds, and possibly the upper Canadian River as well (Trotter 1987). In Colorado, the species occupies less than 1% of its former range (Alves 1996), and wild, genetically pure stock populations are especially imperiled. Artificial habitat including wells, farm ponds, and extensive canal systems as well as human activities including dewatering, fishing and stocking, transbasin diversions, release of domestic sewage, stream channelization, and agricultural chemical applications have greatly modified the original aquatic ecosystem of the San Luis Valley (Zuckerman 1984). These modifications may have contributed directly to the decline in range of the native fishes of the Rio Grande drainage. Free-flowing streams with good quality water, healthy banks, and streamside vegetation within the upper Rio Grande watershed are vital habitat for this subspecies of trout.

Table 26. Natural Heritage element occurrences at Little Ute Creek PCA.
Elements in bold are those upon which the PCA's B-rank is based.

Scientific Name	Common Name	Global Rank	State Rank	Federal and State Status	EO* Rank
Fish					
Oncorhynchus clarki virginalis	**Rio Grande cutthroat trout**	**G4T3**	**S3**	**FS/BLM, SC**	**B**

*EO=Element Occurrence.

Boundary Justification: The boundaries incorporate an area that will allow natural ecological processes such as large woody debris recruitment, adequate canopy cover (to regulate stream temperature), and new channel formation to maintain viable populations of the trout along Little Ute Creek. This boundary indicates the minimum area that should be considered for any conservation management plan. Some hillslope areas which may contribute runoff to Little Ute Creek are not encompassed in the boundary although any activity in these areas should be considered for any conservation management plan.

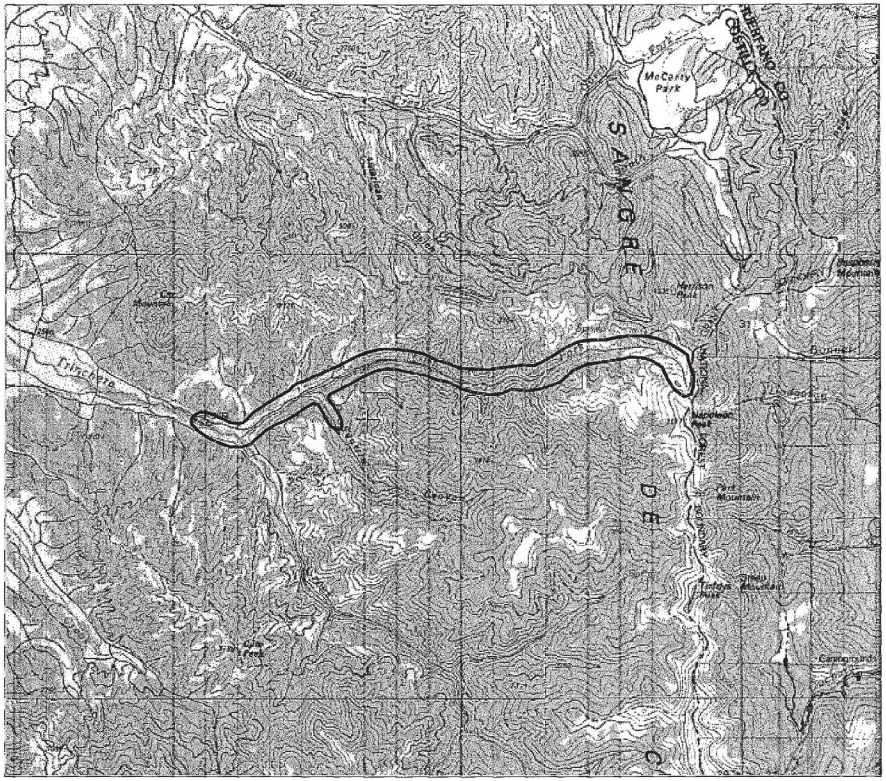
Protection Comments: The entire stretch of the creek occurs on a private ranch.

Management Comments: CNHP wetland ecologists did not visit this PCA during 2003. Thus, it is unknown what management concerns and/or needs exist for this site. The health of the trout population suggests that current management may be adequate for the viability of the trout. Although small, the population is secure from competition with non-native trout (Alves 1997). Alves (1997) suggests to transplant additional Rio Grande cutthroat trout from refugia populations to increase genetic diversity. Alves (1997) also suggests that cooperation with the landowners is necessary to ensure the stream is protected from impacts associated with timber harvesting.

Soils Description: Soils are not mapped at this site but are likely derived from mixed alluvium.

Restoration Potential: CNHP wetland ecologists did not visit this PCA during 2003. Thus, it is unknown what the restoration potential is for this site.

Wetland Functional Assessment: CNHP wetland ecologists did not visit this PCA during 2003. Thus, a functional assessment could not be conducted.



1 0 1 Miles

Projection: UTM, Zone13, NAD27

Colorado Natural Heritage Program
Colorado State University
College of Natural Resources
254 General Services Bldg.
Fort Collins, CO 80523

map created 5 May 2004

Disclaimer

The data contained herein are provided on an as-is, as-available basis without warranties of any kind, expressed or implied, including (but not limited to) warranties of merchantability, fitness for a particular purpose, and non-infringement. CNHP, Colorado State University and the State of Colorado further expressly disclaim any warranty that the data are error-free or current as of the date supplied.

LEGEND

North Fork Trinchera Creek Potential Conservation Area

30 x 60 Minute Series Quads:
Alamosa, 37105a1

Digital Raster Graphics produced by the U.S. Geological Survey, 1996

Location in Study Area

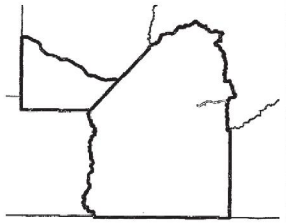


Figure 8. North Fork Trinchera Creek Potential Conservation Area

NORTH FORK TRINCHERA CREEK POTENTIAL CONSERVATION AREA

Biodiversity Rank: B2. Very High biodiversity significance. The PCA supports good examples of a globally imperiled (G2) and globally vulnerable (G3?) riparian plant community and a fair example of the globally vulnerable Rio Grande cutthroat trout.

Protection Urgency Rank: P4. No protection actions are needed in the foreseeable future. The PCA is privately owned. The landowner manages much of this area for wildlife as part of a commercial hunting operation. No immediate threats to riparian area are foreseen.

Management Urgency Rank: M3. Current management seems to favor the persistence of the elements in the PCA, but management actions may be needed in the future to maintain the current quality of the element occurrences.

Location: The PCA is located in the upper Trinchera Creek drainage on the Forbes Trinchera Ranch.

U.S.G.S. 7.5-min. quadrangles: McCarty Park, Ojito Peak, and Trinchera Ranch.

Legal Description: Unsurveyed

Elevation: 8,600-9,500 ft. **Size:** Approximately 1,616 acres

General Description: The PCA consists of a narrow riparian corridor surrounded by upland slopes dominated by mixed conifer forest on north-facing slopes and pinyon-juniper on south-facing slopes.

Upstream, along the most narrow and steep stream reach within the PCA, white fir (*Abies concolor*), Douglas-fir (*Pseudotsua menziesii*), narrowleaf cottonwood (*Populus angustifolia*), aspen (*P. tremuloides*), and Rocky Mountain maple (*Acer glabrum*) dominate the riparian area.

Downstream, as the stream gradient lessens, the channel width somewhat widens, and soils become more fine-textured, narrowleaf cottonwood and thinleaf alder (*Alnus incana*) dominate along with river birch (*Betula occidentalis*). Structural diversity in both plant communities is good with a diverse tree canopy and a thick shrub understory. There are beaver ponds along this lower reach, where graminoids become more dominant. Downstream, the dominance of narrowleaf cottonwood and alder continues along Trinchera Creek, although past disturbances are more apparent in this area.

North Fork Trinchera Creek supports a fair, genetically pure, but transplanted (from West Indian Creek) population of the Rio Grande cutthroat trout (*Oncorhynchus clarki virginalis*) (Harig and Fausch 1996; Alves 1998). The population is unstable because of competition with non-native fish (CDOW 1986). Harig and Fausch (1996) report both brook trout (*Salvelinus fontinalis*) and rainbow trout (*Oncorhynchus mykiss*) as associated species. From 1998 surveys, the population is estimated at 1,324 individuals (Alves 1998). Anthropogenic barriers (irrigation structures) occur along the stream (Alves 2004).

Biodiversity Rank Justification: The PCA supports a good example of the globally imperiled (G2) montane riparian forest (*Abies concolor-Picea pungens-Populus angustifolia/Acer*

glabrum). This plant association is known only from southern Colorado in the San Juan and Sangre de Cristo mountains and but may occur in northern New Mexico. The association is a diverse, mixed conifer-deciduous forest occurring on active floodplains and streambanks of montane valley floors and is a mid- to late-seral community. High elevations and cool, shaded canyon bottoms create an environment for white fir and blue spruce. Here the active channel flooding and sediment deposition allows narrowleaf cottonwood to persist. On higher terraces that no longer experience flooding, the conifers may become the climax tree species. This PCA also supports a good example of a globally vulnerable (G3?) montane riparian forest (*Populus angustifolia/Alnus incana* ssp. *tenuifolia*). This association is known from New Mexico and Colorado. Although not well documented from other states, it is expected to occur throughout the range of narrowleaf cottonwood in the Rocky Mountains. In Colorado, this is a common community along montane streams, but few high quality examples exist. This association is highly threatened by improper livestock grazing, development and stream flow alterations.

The Rio Grande cutthroat trout's range once included the entire Rio Grande and Pecos River watersheds, and possibly the upper Canadian River as well (Trotter 1987). In Colorado, the species occupies less than 1% of its former range (Alves 1996), and wild, genetically pure stock populations are especially imperiled. Artificial habitat including wells, farm ponds, and extensive canal systems as well as human activities including dewatering, fishing and stocking, transbasin diversions, release of domestic sewage, stream channelization, and agricultural chemical applications have greatly modified the original aquatic ecosystem of the San Luis Valley (Zuckerman 1984). These modifications may have contributed directly to the decline in range of the native fishes of the Rio Grande drainage. Free-flowing streams with good quality water, healthy banks, and streamside vegetation within the upper Rio Grande watershed are vital habitat for this subspecies of trout.

Table 13. Natural Heritage element occurrences at North Fork Trinchera Creek PCA. Elements in bold are those upon which the PCA's B-rank is based. Elements in bold are those upon which the PCA's B-rank is based.

Scientific Name	Common Name	Global Rank	State Rank	Federal and State Status	EO* Rank
Fish					
Oncorhynchus clarki virginalis	Rio Grande cutthroat trout	G4T3	S3	FS/BLM, SC	C
Plant Communities					
Abies concolor-(Picea) pungens-Populus angustifolia/Acer glabrum	**Montane riparian forest**	**G2**	**S2**		**B**
Populus angustifolia/Alnus incana ssp. *tenuifolia*	Montane riparian forest	G3?	S3		B

*EO=Element Occurrence.

Boundary Justification: The boundary includes a portion of Trinchera and North Fork Trinchera Creeks and the surrounding watershed. The boundary represents a preliminary estimate of the area needed to maintain local hydrological conditions. It should be noted that the hydrological processes necessary to the elements are not fully contained by the PCA boundaries. Any activities within the watershed such as water diversions, impoundments, improper livestock grazing, development, and mining could potentially be detrimental to the hydrology of the riparian area. The boundary represents the minimum area that should be considered for any conservation management plan.

Protection Comments: The PCA is privately owned. The landowner manages much of this area for wildlife as part of a commercial hunting operation. No immediate threats to ripraian area are foreseen.

Management Comments: Current management appears adequate. Although any intentional breaching of beaver dams may adversely affect hydrology. Uncontrolled deer/elk populations could impact the area but no signs of this were observed during the site visit. Road encroachment poses potential threats to all elements at this PCA, especially the Rio Grande cutthroat trout.

Soils Description: Soils within the riparian area are variable (fine to rocky) and alluvium derived. Near beaver ponds, soils are fine and are accumulating organic matter. The soils are not mapped.

Restoration Potential: Currently, the PCA does not need any major restoration. Should non-native species become an issue, they should be monitored and controlled. Referring to such resources as the Nature Conservancy's web site on invasive species (http://tncweeds.ucdavis.edu/index.html) or http://www.invasivespecies.gov/ may provide some assistance with control and eradication of non-native species.

Wetland Functional Assessment for the North Fork Trinchera Creek PCA:
Proposed HGM Class: Riverine **Subclass:** R2; R3/4
Cowardin System: Palustrine
CNHP's Wetland Classification: *Populus angustifolia/Alnus incana* ssp. *tenuifolia; Abies concolor-(Picea pungens)-Populus angustifolia/Acer glabrum*

Table 14. Wetland functional assessment for the riverine wetland at the North Fork Trinchera Creek PCA.

Function	Rating	Comments
Overall Functional Integrity	At Potential	This riparian area appears to be functioning at its potential.
Hydrological Functions		
Flood Attenuation and Storage	Moderate	There is a high density of shrubs and trees but a narrow floodplain. Beaver ponds aid in storage capability.
Sediment/Shoreline Stabilization	High	Dense growth of herbaceous and woody species along the streambank.
Groundwater Discharge/ Recharge	Yes	There are springs within the floodplain.
Dynamic Surface Water Storage	N/A	This wetland floods via overbank flow.
Biogeochemical Functions		
Elemental Cycling	Normal	A diverse canopy of herbaceous and woody species plus large quantities of woody debris, leaf litter, and soil organic matter suggest intact and functioning nutrient cycles.
Removal of Imported Nutrients, Toxicants, and Sediments.	Moderate	Intact nutrient cycles, dense and diverse cover of vegetation, and beaver ponds provide high capacity to perform this function, however there is very little input from upstream or local sources.
Biological Functions		
Habitat Diversity	High	There are forested, scrub-shrub, emergent, and open water wetland habitats.
General Wildlife Habitat	High	The forest, shrub, and herbaceous canopies provide a diversity of vegetation structure, which along with high vegetation volume, provide excellent habitat for birds, mammals, and insects.
General Fish/Aquatic Habitat	High	Stable streambanks, overhanging vegetation, and a diversity of riffles/pools provide excellent aquatic habitat. Fish are present in the creek, including the Rio Grande cutthroat trout.
Production Export/Food Chain Support	Moderate	A permanent water source and large quantities of allochthonous organic substrates provide various sources of carbon (both dissolved and particulate) and nutrients for downstream ecosystems. However, the width of the riparian area is narrow.
Uniqueness	Low	Similar community types are common in nearby areas.

B3 Potential Conservation Areas

Greenhorn Creek at I-25
Potential Conservation Area

Biodiversity Rank: B3 (High significance)
This PCA contains an unranked (E-ranked) occurrence of a globally imperiled (G2 S2) plant species, Rocky Mountain bladderpod (*Lesquerella calcicola*).

Protection Urgency Rank: P2 (High urgency)
This PCA includes private and state lands along the Interstate 25 corridor. Working with the Colorado Department of Transportation, private landowners, and the State Land Board could identify ways to ensure protection of this site.

Management Urgency: M3 (Moderate urgency)
Invasive weeds and other disturbances along Interstate 25 could pose a threat to the rare plant population.

Location: Pueblo County. Along Interstate 25 between Burnt Mill Road and Colorado City. From exit 83 on I-25 take the Frontage Road south 1.7 miles to an old rest area.

Legal Description: U.S.G.S. 7.5' quadrangle: Verde School. T23S R66W Sections 11, 12, 13, 14, 24.

Size: 991 acres (401 hectares)

Elevation: 5340 to 5700 feet (1630 to 1740 meters).

General Description: Adjacent to an abandoned rest area along I-25, this PCA consists of sedimentary bluffs in shortgrass prairie vegetation with scattered juniper. The rock outcrops support the rare Rocky Mountain bladderpod (*Lesquerella calcicola*), as well as blazing star (*Nuttallia decapetala*) and prickly poppy (*Argemone* sp.). The shortgrass prairie includes blue grama (*Bouteloua gracilis*), three-awn grass (*Aristida purpurea*), needle-and-thread grass (*Stipa comata*), Indian ricegrass (*Oryzopsis hymenoides*), rabbitbrush (*Chrysothamnus* sp.), yucca (*Yucca glauca*), and cholla (*Cylindropuntia imbricata*). A couple of rough dirt roads cross the area, and some intermittent streams drain toward the east. The site has good views of the Wet Mountains.

Biodiversity Comments: This PCA contains an unranked (E-ranked) occurrence of a G2 S2 plant species, Rocky Mountain bladderpod (*Lesquerella calcicola*). The Rocky Mountain bladderpod occurs in shale outcrops and chalky or sandy soils. It is found only in El Paso, Fremont, Huerfano, Las Animas, Conejos, and Pueblo counties in Colorado, and in northeastern New Mexico. It was first observed in Colorado in 1878. Little is known about this species.

Natural Heritage element occurrences at the Greenhorn Creek at I-25 PCA.

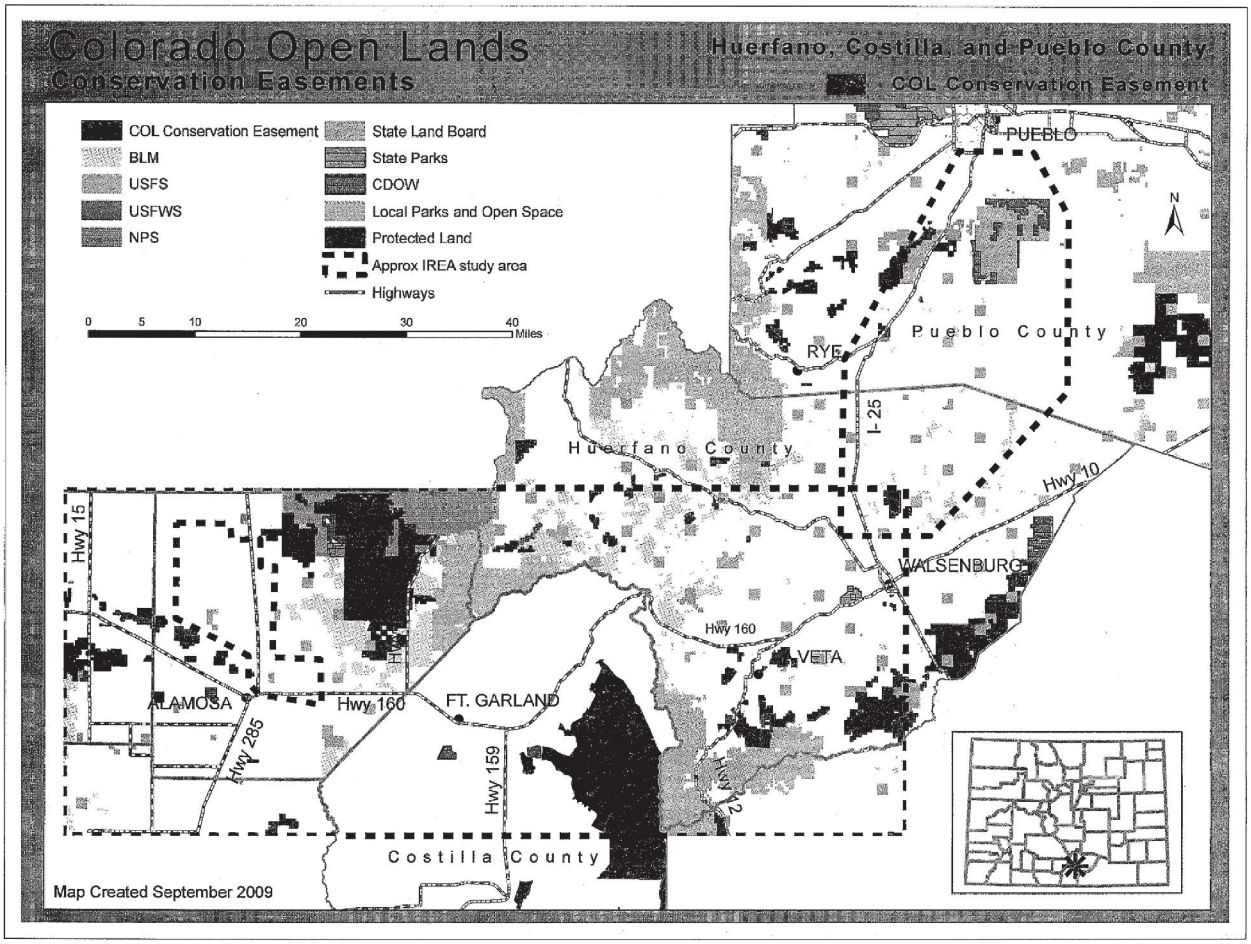
Element	Common Name	Global Rank	State Rank	Federal Status	State Status	Federal Sensitive	EO* Rank	Last Observed
Plants								
Lesquerella calcicola	Rocky Mountain bladderpod	G2	S2				E	1998-06-19

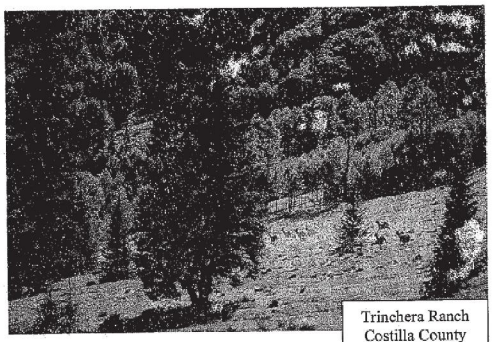
*EO = Element Occurrence

Boundary Justification: The boundary encompasses the element occurrence, plus unsurveyed, apparently suitable habitat in the vicinity of the occurrence. In general, PCA boundaries are drawn to represent our best estimate of the primary area needed for the survival of the occurrence. This area is estimated to be sufficiently large to protect intact (or at least allow simulation of) most of the natural ecological processes necessary for survival of the species, including reproduction ecology, and hydrology. The boundaries also include the mosaic of community types on which the species may rely (knowledge of this species is incomplete).

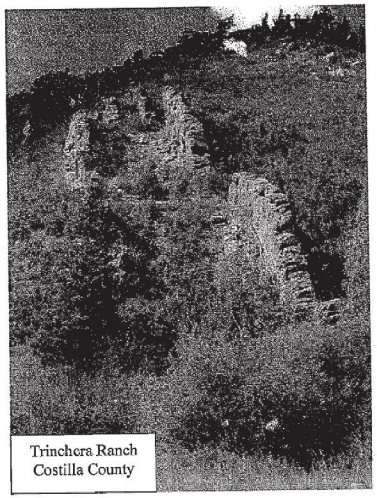
Protection Comments: This PCA includes private and state lands along the Interstate 25 corridor. Working with the Colorado Department of Transportation, private landowners, and the State Land Board could identify ways to ensure protection of this site.

Management Comments: Additional surveying for this plant is warranted, but the current data suggest that it is extremely rare. Russian thistle (*Salsola australis*), cheatgrass (*Bromus tectorum*), and field bindweed (*Convolvulus arvensis*) are non-native weeds that were noted along this stretch of I-25 within the PCA. Further inventory and monitoring of the weeds and the rare plants would inform management needs.

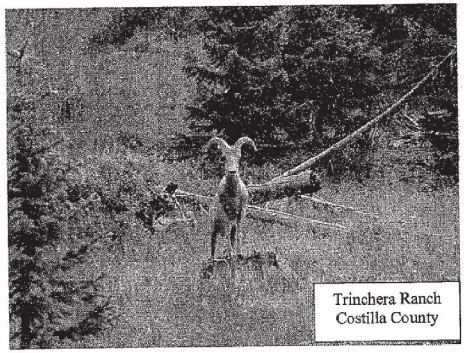

Colorado Open Lands
Conservation Easements
Huerfano, Costilla, and Pueblo County
COL Conservation Easement
COL Conservation Easement
BLM
USFS
USFWS
NPS
State Land Board
State Parks
CDOW
Local Parks and Open Space
Protected Land
Approx IREA study area
Highways
0 5 10 20 30 40 Miles
PUEBLO
N
Pueblo County
RYE
I-25
Huerfano County
Hwy 10
Hwy 15
WALSENBURG
Hwy 160
VETA
ALAMOSA
Hwy 160
FT. GARLAND
Hwy 285
Hwy 159
Hwy 12
Costilla County
Map Created September 2009



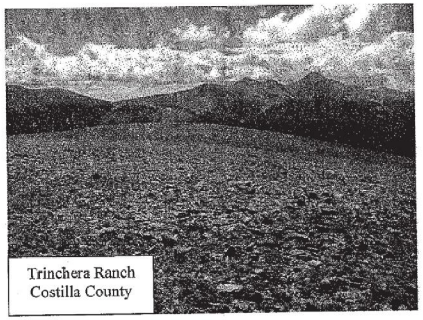
Trinchera Ranch
Costilla County



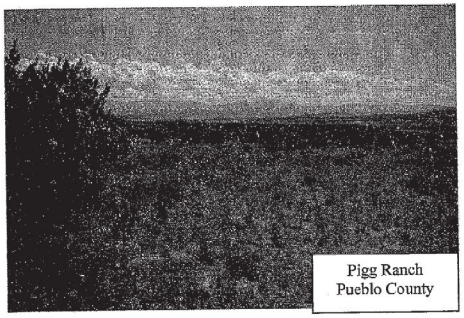
Trinchera Ranch
Costilla County



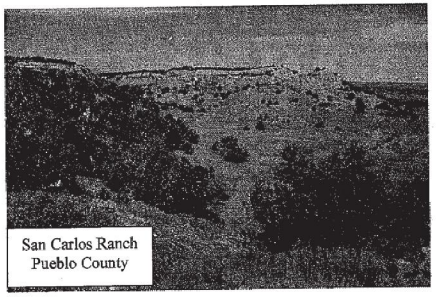
Trinchera Ranch
Costilla County



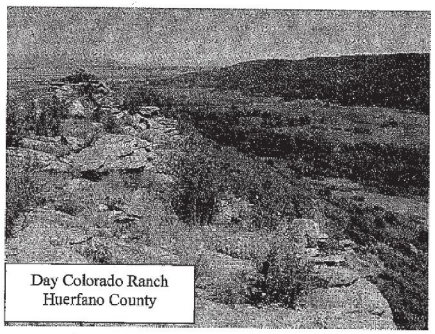
Trinchera Ranch
Costilla County

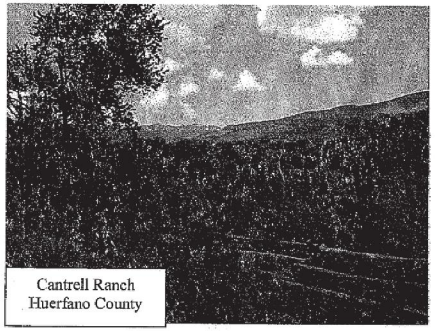


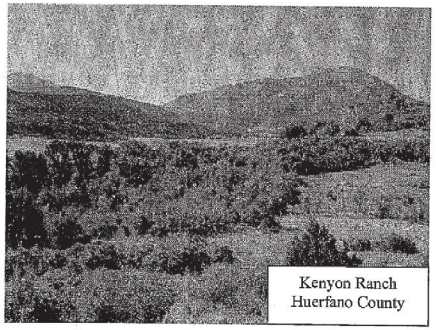
Pigg Ranch
Pueblo County

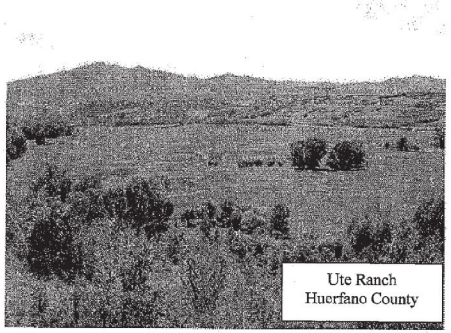


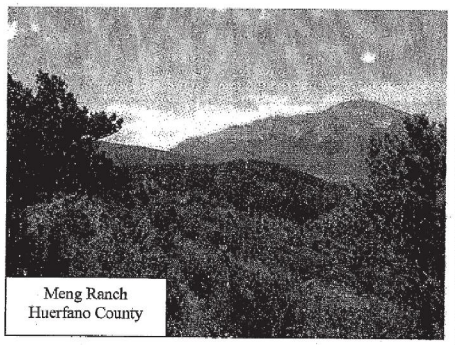
San Carlos Ranch
Pueblo County

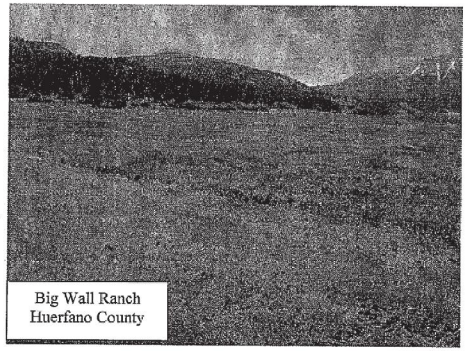

Day Colorado Ranch
Huerfano County


Cantrell Ranch
Huerfano County


Kenyon Ranch
Huerfano County


Ute Ranch
Huerfano County


Meng Ranch
Huerfano County


Big Wall Ranch
Huerfano County

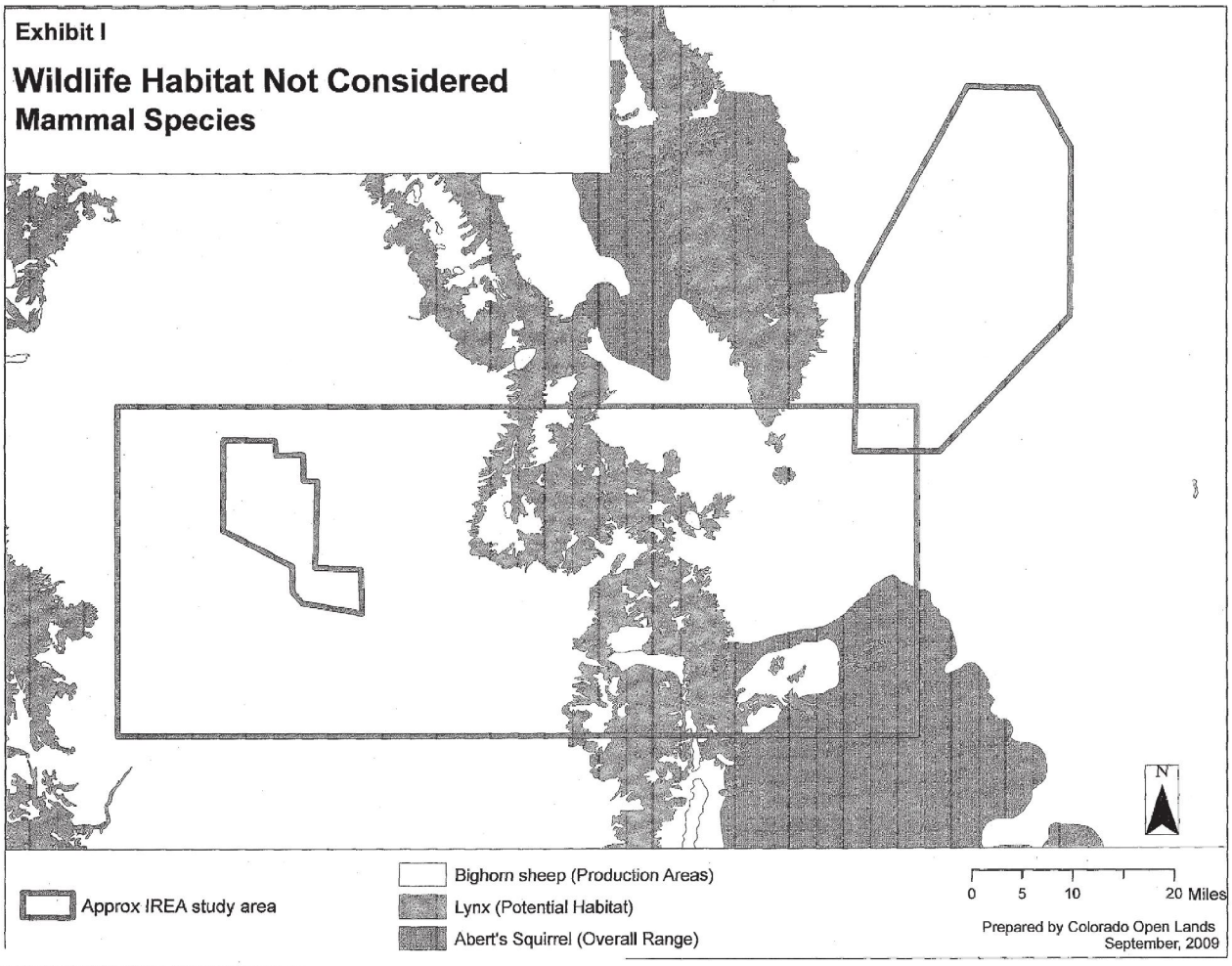


Exhibit I
Wildlife Habitat Not Considered
Mammal Species
N
Approx IREA study area
Bighorn sheep (Production Areas)
Lynx (Potential Habitat)
Abert's Squirrel (Overall Range)
0 5 10 20 Miles
Prepared by Colorado Open Lands
September, 2009

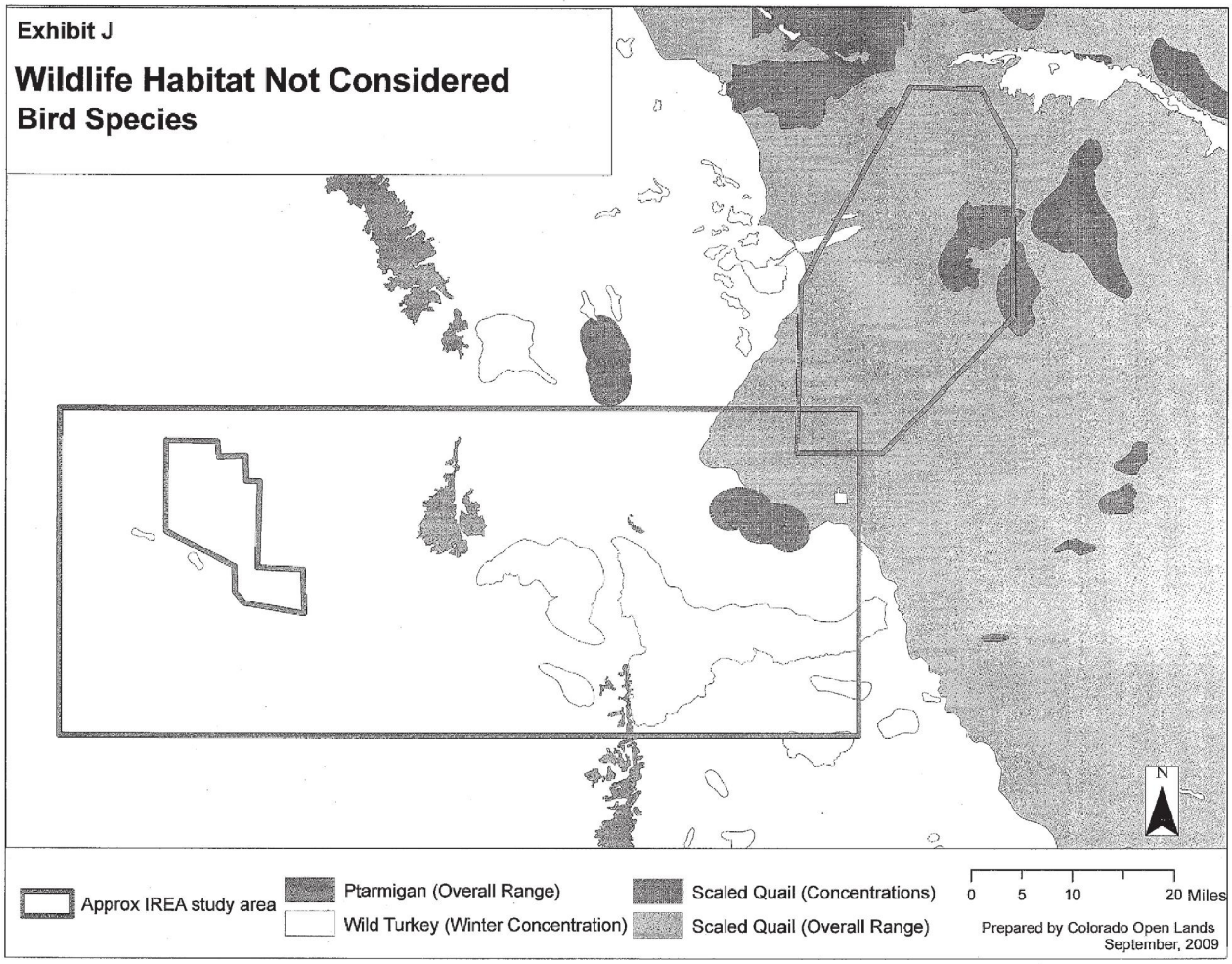


Exhibit J
Wildlife Habitat Not Considered
Bird Species
N
Approx IREA study area
Ptarmigan (Overall Range)
Wild Turkey (Winter Concentration)
Scaled Quail (Concentrations)
Scaled Quail (Overall Range)
0 5 10 20 Miles
Prepared by Colorado Open Lands
September, 2009

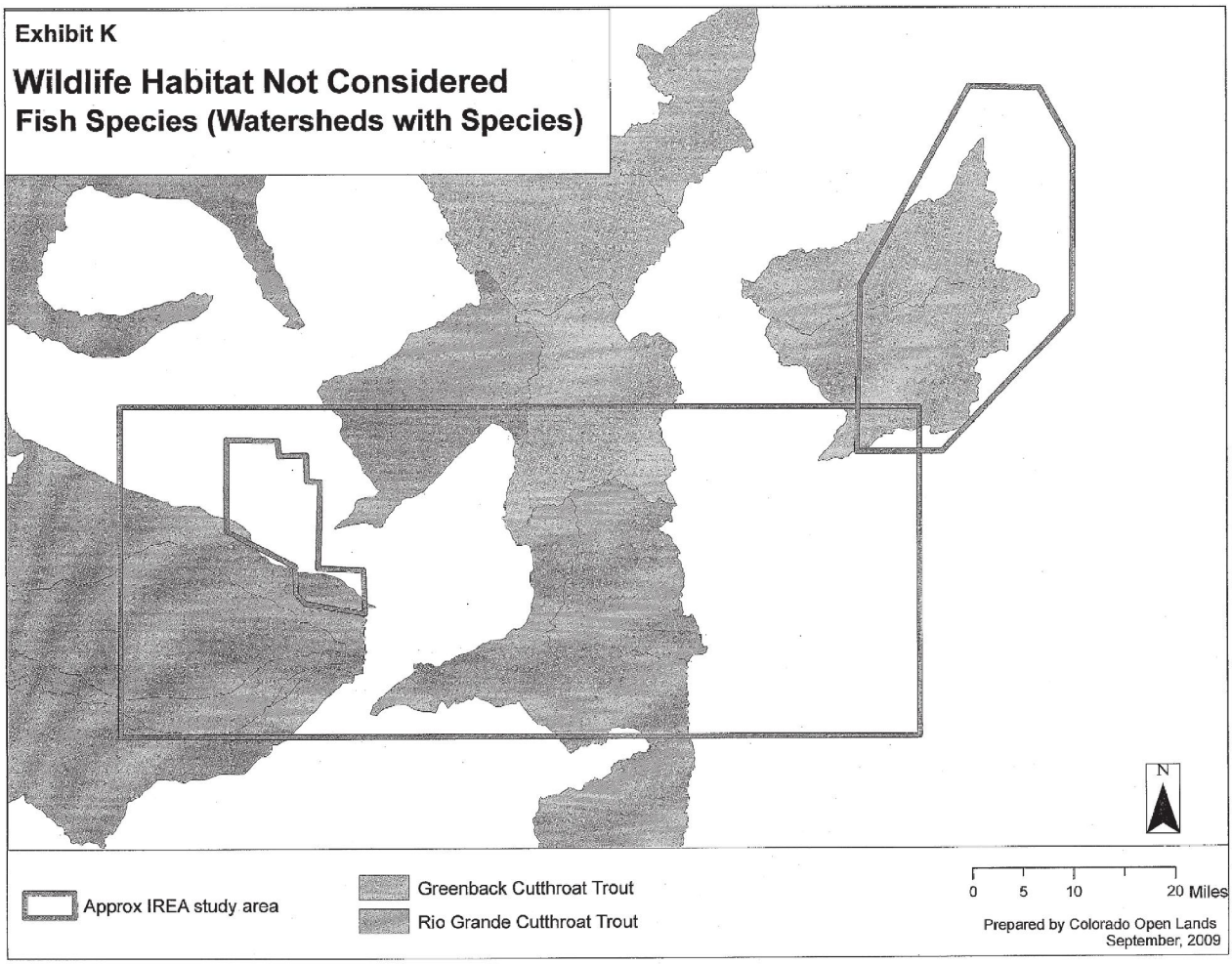
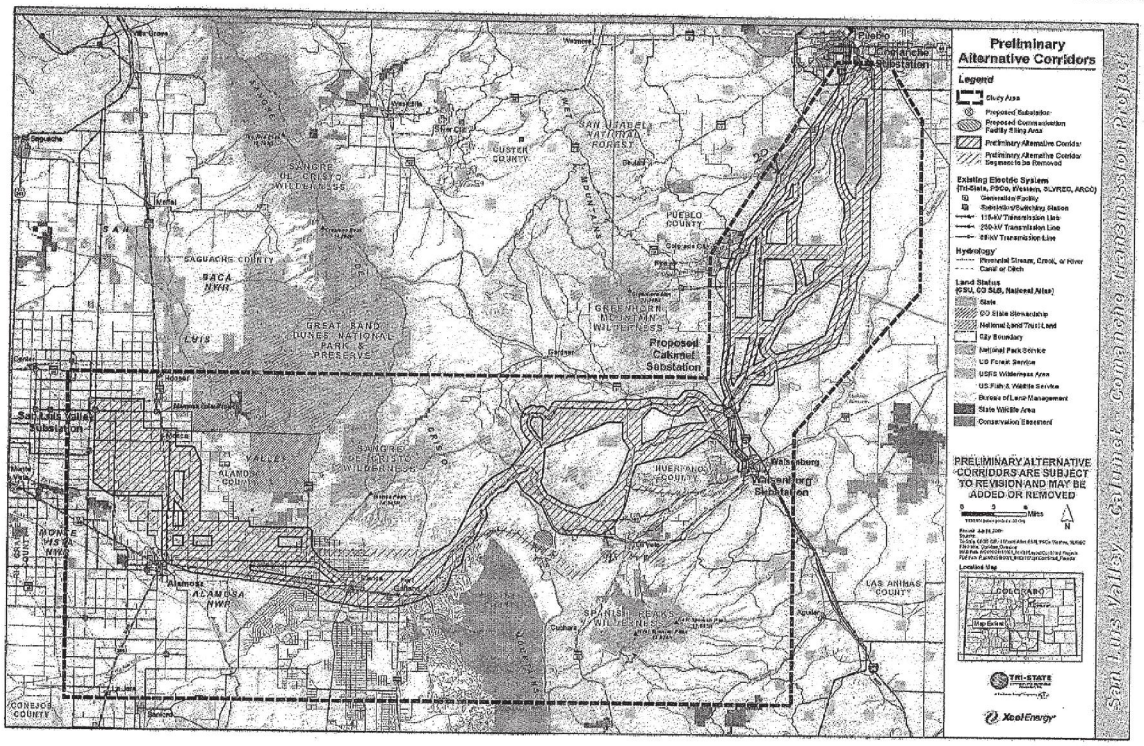


Exhibit K
Wildlife Habitat Not Considered
Fish Species (Watersheds with Species)
N
Approx IREA study area
Greenback Cutthroat Trout
Rio Grande Cutthroat Trout
0 5 10 20 Miles
Prepared by Colorado Open Lands
September, 2009


Preliminary Alternative Corridors
Legend
Study Area
Proposed Substation
Proposed Commissioning Facility Siting Area
Preliminary Alternative Corridor
Preliminary Alternative Corridor Segment to be Removed
Existing Electric System (Tri-State, PSCo, Western, SLVREC, ARCO)
Generation Facility
Substation/Switching Station
115-kV Transmission Line
230-kV Transmission Line
345-kV Transmission Line
Hydrology
Perennial Stream, Creek, or River
Canal or Ditch
Land Status (FGU, CO SLB, National Atlas)
State
CO State Stewardship
National Land Trust Land
City Boundary
National Park Service
US Forest Service
USFS Wilderness Area
US Fish & Wildlife Service
Bureau of Land Management
State Wildlife Area
Conservation Easement
PRELIMINARY ALTERNATIVE CORRIDORS ARE SUBJECT TO REVISION AND MAY BE ADDED OR REMOVED
Miles
Location Map
Proposed Calumet Substation
San Luis Valley Substation
Walsenburg Substation
Pueblo Comanche Substation
SAN LUIS VALLEY
SAGUACHE COUNTY
CONEJOS COUNTY
ALAMOSA COUNTY
COSTILLA COUNTY
HUERFANO COUNTY
LAS ANIMAS COUNTY
PUEBLO COUNTY
CUSTER COUNTY
SANGRE DE CRISTO WILDERNESS
GREAT SAND DUNES NATIONAL PARK & PRESERVE
SAN ISABEL NATIONAL FOREST
GREENHORN MOUNTAIN WILDERNESS
SPANISH PEAKS WILDERNESS
SAN LUIS VALLEY - CALUMET - COMANCHE TRANSMISSION PROJECT
Xcel Energy
TRI-STATE